

than the Tachinid mentioned by Mr. Walton, stating that *Chelonus* caused a total mortality and emerged from the third or fourth instar of *Laphygma* larvæ.

—Mr. Busck asked Mr. Walton if he had been able to find any remains of the Tachinid larvæ in the *Laphygma* larvæ on which more than one egg was laid, and whether it had been ascertained if the Tachinid parasite was crowded out in the larval or egg stage.

Mr. Walton said that he had no evidence.

The third paper, "The Ovipositor of *Parandra brunnea* Fabr." was read by Mr Snyder.

THE OVIPOSITOR OF PARANDRA BRUNNEA FAB.

BY T. E. SNYDER, *Bureau of Entomology.*

The family Spondylidæ is of considerable interest in that there is quite a little doubt as to its proper position in the classification of Coleoptera. Indeed, some authors consider the genera *Parandra* Lat., *Spondylis* Fab. and *Scaphinus* Lec., which LeConte and Horn¹ have placed in a separate family, either as belonging to the family Cerambycidæ or as aberrant Cerambycidæ. LeConte and Horn have divided the family Spondylidæ into the subfamilies Parandrinæ and Spondylinæ the former embracing the genus *Parandra* Lat., the latter the genera *Spondylis* Fab. and *Scaphinus* Lec. As LeConte states,² this family "might be regarded as representative of a family nearly extinguished in the lapse of time," for the species are "very few and highly discrepant."³ Species of the genus *Parandra* Lat., like those of genera of the family Prionidæ have the prothorax margined and as there are many characters to indicate relationship, it has been included in this family by some authors as an aberrant form. The larva of *Parandra brunnea* Fab. is typically Cerambycid-like in form and has characters which, according to Mr. F. C. Craighead of the Bureau of Entomology, place it between the groups *Prionini* and *Asemini*. The larva of *Spondylis buprestoides* Linn.,⁴ a European species, according to Judeich and Nitsche, is similar to Cerambycid larvæ in form. The

¹ Classification of the Coleoptera of North America, Washington, 1883, p. 264.

² Journ. Ac. Nat. Sci., 2nd Ser., vol. II, 1851, p. 99.

³ Sharpe, D. "Insects." Pt. II, pp 287-8, "The Cambridge Natural History," vol. VI, 1901.

⁴ Lehrbuch der Mitteleuropæischen Forstinsektenkunde, 2, 1, 1889, pp. 570-71.

ovipositor of species of the genus *Parandra* Lat. is unlike the fleshy ovipositor of most of the Cerambycidae as it is heavily chitinized and highly specialized, being adapted to actually insert the eggs in wood. The ovipositors of species of the genera *Spondylis* Fab. and *Scaphinus* Lec., however, more closely resemble those of the normal Cerambycidae. The ovipositor of *Parandra brunnea* Fab. (fig. 1) is operated by being extended by the contraction of the muscular attachment of a chitinous rod and an invagination, sternite VIII. The 8th abdominal tergite overlaps the 7th and the rod and sheath is attached by muscles to the 7th tergite and the 8th sternite. The function of the ovipositor, which terminates in

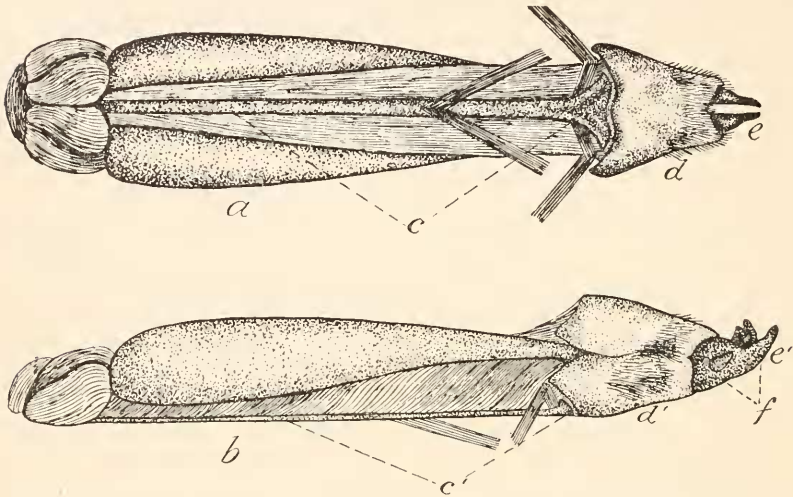


Fig. 1. Ovipositor of *Parandra brunnea* Fabr.; a, ventral view; b, lateral view of same, showing c, c' rod; d, d' invagination; e, e' prongs; f, foveae.

three pair of up-pointing prongs or teeth, the inner pairs or molars of which are movable, is probably to drill or rasp out a pocket for the egg. The muscles at the base of the ovipositor enable it to be twisted about. The ovipositor of *Prionus laticollis* Drury (fig. 2) is also chitinized and is a modification of the normal fleshy ovipositor of Cerambycids.

The nomenclature is omitted as Dr. Hopkins and Dr. Böving will later correlate the various parts of the ovipositor of *Parandra brunnea* Fab.

The eggs of *Parandra brunnea* Fab. are inserted in decaying wood or even in moist wood where there is only incipient decay. A chestnut telegraph pole in which eggs were found was set in the

ground near Anacostia, D. C., and had been standing but little over a year. A number of the eggs are inserted proximately, often in the

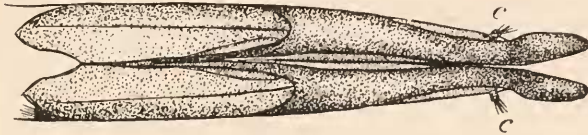


Fig. 2. Ovipositor of *Prionus laticollis* Drury, ventral view c, c' cerci.

pores which are rich in food substances. The larvæ upon hatching excavate shallow longitudinal burrows, then enter the wood transversely. This habit of living in wood below the surface of the ground is shared with species of the Prionidæ and doubtless the earth about the wood serves the purpose of retaining moisture as does the bark upon logs under which many beetles insert their eggs.

The drawings are by C. T. Greene.

The following papers were accepted for publication:

A NEW SPECIES OF SIMULIUM FROM TEXAS.

BY J. R. MALLOCH.

Simulium distinctum, new species.

Male: Black. Antennæ yellow, generally more or less brown toward apices; face with silvery pollinosity; palpi and proboscis black, or brown. Mesonotum deep velvety black, with two silvery pollinose, slightly curved lines, which are broadest at anterior extremities, and extend the whole length of disk, meeting at the posterior margin with a cross band of the same color; side margin yellowish, with silvery pollinosity, prescutum yellow; pleuræ opaque gray, yellowish below wing base on the membranous portion of mesopleura; scutellum black; post-notum black with a silky lustre. Abdomen with basal scale velvety black or brown-black, the segment below it yellow, the succeeding three segments deep velvety black; next segment sometimes more or less yellowish, and almost entirely covered with silvery pollinosity, which is also noticeable on sides of next segment; apical segments and hypopygium black. Legs yellow; fore coxæ slightly, mid and hind coxæ distinctly grayish; hind femora with apical half blackened; fore tibiæ darkened towards apices and, like the other tibiæ, whitish on dorsal surfaces; hind tibiæ with apical half black; fore tarsi black; mid and hind tarsi with apices of first and second, and whole of third to fifth joints black. Wings clear. Halteres yellow.

Head normal in shape, the upper eye facets much larger than the lower; face with a few black hairs. Mesonotum with golden pilosity, which is